

# PATENT ABSTRACTS OF JAPAN

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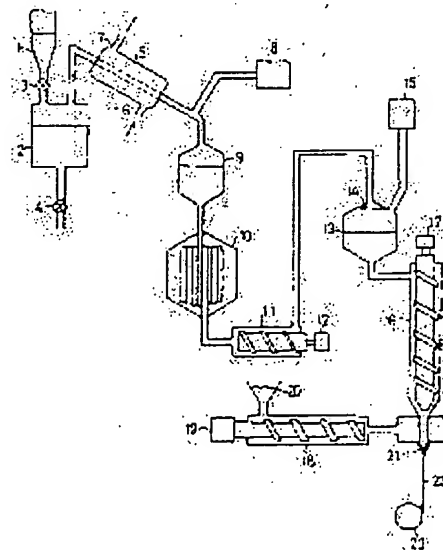
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## (54) PRODUCTION OF PLASTIC OPTICAL FIBER

### (57)Abstract:

PURPOSE: To produce a plastic optical fiber of small transmission loss, by block polymerizing the monomer for forming a core, and successively forming the core fiber and clad continuously in the state of absence of oxygen.

CONSTITUTION: The apparatus is first maintained under nitrogen atmosphere, and styrene is stored in a monomer well 1, and the refined monomer distilled under reduced pressure by a distiller 2 is sent into a reservoir 9. Next, the refined styrene is sent into a polymerizing vessel 10 to be polymerized preliminarily, and is completely polymerized in a screw conveyor 11 in three hours of residence time therein. The polymer is extruded from a polymer storage tank 13 by means of an extrusion screw 16, and pellets are supplied in a screw 18 for extruding clad material from a hopper 20, and an optical fiber 22 is formed by means of a double extrusion nozzle 21. In this production method, a plastic optical fiber of low loss may be produced without accompanying oxidation disturbance of polymer.



## LEGAL STATUS

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